

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
The Proposed Extension of Part 4 of the)	PS Docket No. 11-82
Commission's Rules Regarding Outage)	
Reporting to Interconnected Voice Over)	
Internet Protocol Service Providers and)	
Broadband Internet Service Providers)	

**REPLY COMMENTS OF
THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES
AND
THE NEW JERSEY DIVISION OF RATE COUNSEL**

Charles Acquard, Executive Director
NASUCA
8380 Colesville Road, Suite 101
Silver Spring, MD 20910
Phone (301) 589-6313
Fax (301) 589-6380

Stefanie A. Brand
Director
Division of Rate Counsel
Christopher J. White
Deputy Public Advocate
P.O. Box 46005
Newark, NJ 07101
Phone (973) 648-2690
Fax (973) 624-1047
www.rpa.state.nj.us
njratepayer@rpa.state.nj.us

Economic Consultants:

Susan M. Baldwin
Sarah M. Bosley

October 7, 2011

TABLE OF CONTENTS

I. INTRODUCTION.....	1
II. REPLY TO COMMENTS	3
A. Contrary to industry’s contentions, the proposed outage reporting requirements are in the public interest, and competition is insufficient to ensure a resilient, reliable national broadband network.....	3
B. President Obama’s Executive Order on examining regulations does not preclude the FCC’s adoption of outage reporting regulations.	7
C. Public-private partnerships should complement but not substitute for government-mandated outage reporting.....	8
D. Industry has failed to demonstrate that the burdens associated with outage reporting outweigh the public benefits that result from outage reporting.....	9
E. Voluntary reporting and trials are inadequate alternatives to government-mandated outage reporting.	11
F. Statutory Authority	14
G. Confidentiality of Reporting	15
H. Triggers for Outage Reports.....	19
a. Background	19
b. Timing for Notification.....	20
c. Minimum Duration of Reportable Outages and Trigger for Reporting Outages.....	21
d. Timing of Submission of Initial Communications Outage Report and Final Communications Outage Report	27
e. Packet loss, latency, and jitter	28
III. CONCLUSION	31

SUMMARY

The National Association of State Utility Consumer Advocates (“NASUCA”) as an organization and the New Jersey Division of Rate Counsel (“Rate Counsel”) as an agency representing New Jersey consumers and as a member of NASUCA (collectively, “Consumer Advocates”) reiterate their support for mandatory outage reporting by Voice over Internet Protocol (“VoIP”) providers, broadband Internet access service providers, and broadband backbone Internet service providers. Such reporting need not replace ongoing public-private collaboration, and should be established in a manner that permits periodic modification, as needed, to correspond with technological and industry developments. Furthermore, state regulators and consumer advocates should participate in such collaboration so that the perspective of the end user is adequately represented in the reporting process. The benefit to the health of the Nation’s networks and of the ability of consumers to reach emergency services far outweigh the vaguely estimated cost and burdens of outage reporting.

Consumer Advocates acknowledge the point raised by industry members in their initial comments that the Internet protocol (“IP”)-based network is designed to be more resilient than is the legacy circuit-switched network, but this distinction does not justify excluding new technology from mandatory outage reporting. If the IP-network, with its built-in redundancies, experiences fewer outages than does the legacy network, then the burden of reporting should be correspondingly reduced. Similarly, if industry’s conjecture is correct that marketplace dynamics create an incentive for industry to minimize outages, the burden of reporting should

also be correspondingly reduced. Finally, Consumer Advocates welcome specific suggestions by industry members that would improve, as appropriate, the outage reporting system provided that such suggestions are consistent with the adoption of mandatory, standardized, and timely outage reporting.

Consumer Advocates disagree with the industry's insistence that outage reporting information be given confidential treatment. Time and again, the industry argues that the telecommunications market is competitive. Yet, the industry would have the FCC shield companies from competition among themselves based on the most basic of service quality indices: the ability to complete a call to emergency services. Markets cannot operate efficiently without complete information.

The industry argues that the trigger for an outage report should be based solely on consumers' inability to reach emergency services and should not be triggered by performance relative to "quality of service" metrics such as latency, jitter, and packet loss. In those instances where these metrics could lead to a degradation of service such that they affect communications performance, these metrics should be considered relevant.

Consumer Advocates fully support the FCC's proposed adoption of rules that will enable it to obtain a "big picture" view of the status, resiliency, and reliability of the nation's increasingly important broadband-based communications infrastructure, and one that is based on a uniform set of core data. The FCC's ability to fulfill its obligations relating to public safety and welfare depend critically on its access to a core set of timely, standardized information. Furthermore, the FCC should ensure that this critical information is shared with state agencies in the most efficient manner possible.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
The Proposed Extension of Part 4 of the)	PS Docket No. 11-82
Commission's Rules Regarding Outage)	
Reporting to Interconnected Voice Over)	
Internet Protocol Service Providers and)	
Broadband Internet Service Providers)	
)	

**REPLY COMMENTS OF
THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES
AND
THE NEW JERSEY DIVISION OF RATE COUNSEL**

I. INTRODUCTION

The National Association of State Utility Consumer Advocates ("NASUCA") as an organization and the New Jersey Division of Rate Counsel ("Rate Counsel") as an agency representing New Jersey consumers and as a member of NASUCA (collectively, "Consumer Advocates")¹ hereby respond to initial comments² submitted in response to the Federal

¹ / Consumer Advocates also submitted initial comments.

² / These reply comments respond to the following subset of the initial comments submitted in this proceeding: Alliance for Telecommunications Industry Solutions ("ATIS"); AT&T Services, Inc. ("AT&T"); CenturyLink; Comcast Corporation ("Comcast"); Massachusetts Department of Telecommunications and Cable ("Massachusetts DTC"); Michigan Public Service Commission ("Michigan PSC"); National Cable & Telecommunications Association ("NCTA"); New York Public Service Commission ("New York PSC"); Sprint Nextel Corporation ("Sprint"); T-Mobile USA, Inc. ("T-Mobile"); Verizon and Verizon Wireless ("Verizon"); Vonage Holdings Corp. ("Vonage"); Wireless Internet Service Providers Association ("WISPA"); and XO Communications, LLC ("XO"). Consumer Advocates have sought to review a representative sampling of the

Communications Commission's ("FCC" or "Commission") Notice of Proposed Rulemaking ("Notice") proposing rules to require interconnected Voice over Internet Protocol ("VoIP")³ and broadband Internet service providers ("ISP") to report significant outages to the FCC.⁴

State regulators generally support the FCC's proposed extension of its outage reporting requirements to VoIP service providers and ISPs,⁵ and industry generally opposes such an extension.⁶ Consumer Advocates concur with Commissioner Copps that consumers have certain baseline expectations about their communications services, regardless of the underlying technology that is used to offer those services:

It's long past time for us to get beyond thinking about critical communications as just traditional voice and to realize consumers don't make a lot of these distinctions that so often seem to fixate us and stymie us here in Washington, and especially they don't make them when they are in trouble and need action fast. Consumers expect to communicate using all the tools at their disposal, and certainly they expect to get and should get the critical information they need through their IP-based services.⁷

comments that have been submitted, and may file an additional *ex parte* filing based on their review of reply comments.

³ / Throughout these reply comments, the use of the term "VoIP" is intended to refer to interconnected VoIP.

⁴ / *In the Matter of The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers*, PS Docket No. 11-82, *Notice of Proposed Rulemaking*, rel. May 13, 2011 ("Notice").

⁵ / Massachusetts DTC, at 2; New York PSC, at 2; and Michigan PSC, at 4.

⁶ / See e.g., Verizon, T-Mobile, XO, CenturyLink and Vonage. Note, however, that Comcast supports the extension of outage reporting to interconnected VoIP service providers (but not to broadband ISPs). Comcast, at 2-3.

⁷ / Remarks of Commission Michael J. Copps, Workshop/Webinar on Proposed Extension of Outage Reporting and on Network Reliability and Continuity, Washington, DC, September 8, 2011 ("FCC Workshop"), at 1.

Consumer Advocates also concur with Chairman Genachowski that outage reporting systems should keep pace with technological changes.⁸ Broadband is a large and growing part of our nation's communications infrastructure and its resiliency is vital to public safety.⁹

For the reasons discussed in their initial comments, and in these reply comments, Consumer Advocates disagree that outage reporting is unnecessary to achieve the Commission's goals of (1) addressing broadband vulnerabilities, (2) helping to prevent outages through adoption of best practices, and (3) coordinating with individuals and groups.¹⁰

II. REPLY TO COMMENTS

A. Contrary to industry's contentions, the proposed outage reporting requirements are in the public interest, and competition is insufficient to ensure a resilient, reliable national broadband network.

Outage reports are important, and the FCC has ample evidence on the record that wireline reporting has contributed to a reduction in outages, which, in turn, protects consumers' safety and welfare.¹¹ The same level of protection is appropriate and important as the nation increasingly relies on broadband technology to communicate. Furthermore, contrary to many industry members' comments,¹² purported competition alone does not obviate the need for

⁸ / Remarks of Chairman Julius Genachowski, FCC Workshop, at 2.

⁹ / Remarks of Jeffery M. Goldthorp, Associate Bureau Chief for Cybersecurity and Communications Reliability and Acting Chief of the Communications Systems Analysis Division, Public Safety and Homeland Security Bureau, FCC, FCC Workshop.

¹⁰ / See, e.g., CenturyLink, at 20.

¹¹ / See, e.g., Consumer Advocates, at 3-4, citing *Notice*, at paras. 3, 16, 17, 20; Massachusetts DTC, at 2-3; New York PSC, at 4-5.

¹² / See, e.g., CenturyLink, at 14; NCTA, at 17; T-Mobile, at 3; Verizon, at 6; XO, at 4.

reporting. Finally, a system of uniform reporting provides the FCC with a broader picture than the piecemeal approach that now exists for collecting and distributing information on outages.¹³

The industry contends that its networks are reliable and that competition provides adequate incentives for carriers to maintain reliable service.¹⁴ For example, Verizon contends it “endeavors to maintain greater than 99.99% availability of its broadband network infrastructure, even for its lower priced, ‘best effort’ broadband services.”¹⁵ Verizon’s attempt to show that its network is reliable¹⁶ simply undermines the industry position (discussed below) that reporting of outages would be burdensome. If “network outages for broadband access services are rare events,”¹⁷ then any reporting associated with these “rare” events should not be burdensome.

According to CenturyLink, “Broadband Internet access service providers continuously strive to meet the demands of their customers,” which makes mandatory outage reporting unnecessary.¹⁸ Similarly, XO contends that there is insufficient evidence to suggest that end users would benefit from extending the reporting requirement to IP-based networks¹⁹ and further asserts that the marketplace creates greater incentives to prevent outages than would the

¹³ / The FCC has been assigned the task (through Presidential Directives and Executive Orders) of ensuring continuous network operation and the reconstitution of critical communications in times of emergency. *Notice*, at para. 6. The FCC adopted its current outage reporting rules in 2004. *Id.*, at para. 8. These rules (see CFR Sections 4.1-4.13) apply to providers of legacy circuit-switched voice or paging communications over wireline, wireless, cable, and satellite report outages. *Id.*, at para. 10. The National Broadband Plan recommended extending the Part 4 rules to VoIP and ISPs concluding: “the lack of data limits our understanding of network operations and of how to prevent future outages.” *Id.*, at para. 19, citing Omnibus Broadband Initiative, *Connecting America: The National Broadband Plan* (Recommendation 16.6, Mar. 2010).

¹⁴ / See, e.g., NCTA, at 17; T-Mobile, at 3; Verizon, at 6; CenturyLink, at 14; XO, at 4.

¹⁵ / Verizon, at 3.

¹⁶ / See, e.g., *id.*, at 3-6.

¹⁷ / Verizon, at 7. See, also, Vonage, at 6 describing how reliable its service is and the different ways it can continue to function even when traditional phone service cannot.

¹⁸ / CenturyLink, at 14.

¹⁹ / XO, at 4.

proposed regulations.²⁰ However, any marketplace incentives that now exist will not vanish when the FCC imposes mandatory outage reporting requirements. Furthermore, to the extent that incentives successfully lead to more resilient networks, industry's need to report outages should decline. Consumer Advocates concur with the New York PSC's reasoning that "the existence of competition, even if it is effective and thriving, may not ensure reliable networks, and there is too much at risk for the people and the State to conclude otherwise" and that "[p]rotecting public health, safety and welfare remains essential and requires that we continue monitoring and enforcing network reliability, consistent with our responsibilities under the Public Safety Law."²¹

This position is also recognized by the Massachusetts DTC. For example, the Massachusetts DTC notes that in Massachusetts alone, the requirements "will benefit more than 1 million Massachusetts residential and business subscribers of interconnected VoIP services and more than 2.5 million Massachusetts Internet broadband households" and that "[e]xtended outage reporting requirements are necessary for reasons inclusive of public safety and offering additional insight into the development of a Next Generation 9-1-1 (NG 9-1-1) network."²² Massachusetts DTC provides compelling reasons for expansion of outage reporting, suggesting that the requirements could "reduce the number and severity of significant outages"²³ due to Commission aggregation and analysis of relevant data.

²⁰ / *Id.*, at 3. Similarly, Sprint asserts that IP networks, which can re-route traffic when a network node fails, are more reliable than is the public switched telephone network, and that fact, combined with the "competitive marketplace" mean that a mandatory outage reporting regime is unnecessary. Sprint, at 5.

²¹ / New York PSC, at 4, citing its *Intermodal Competition Order*.

²² / Massachusetts DTC, at 2 (cites omitted).

²³ / *Id.*, at 3. See, *id.*, citing instances of VoIP and broadband outages.

In matters concerning public safety and security, the FCC is properly gathering the information that it needs to fulfill its obligations responsibly. Consumer Advocates continue to support the FCC's reporting requirements and strenuously disagree that such reporting is unnecessary or rendered moot by the advent of competition, whatever its extent.

As Consumer Advocates have demonstrated in numerous other pleadings before the FCC, effective broadband competition has not yet developed, but instead consumers can at best choose between two providers in duopolistic-controlled markets. Indeed, those consumers who seek "triple play" bundles with relatively fast broadband access to the Internet may have only a single option in the purportedly "competitive" market: the cable company. In the many markets where incumbent local exchange carriers ("ILEC") have not rolled out fiber-based Internet access options (and so only offer digital subscriber line ("DSL") service), many consumers often choose the triple play that the sole cable company in the market offers rather than the ILEC's slower-DSL-based offering. This broadband link then becomes the foundation for the voice call to emergency services. In the absence of effective competition, and in the context of increasing reliance on broadband-based access to the communications infrastructure, it is entirely appropriate and important that the FCC require *at a minimum* outage data for VoIP providers, and, if not in this proceeding, then in a separate proceeding, also require quality of service data for VoIP providers.²⁴

Consumer Advocates disagree with T-Mobile's premise that the exchange of information throughout the industry is somehow sufficient to achieve the goal of a resilient network.²⁵ The

²⁴ / For similar reasons, the FCC should re-instate quality of service reporting requirements for legacy voice service.

²⁵ / T-Mobile, at 4.

FCC has a unique and critical responsibility of oversight, and, therefore, outage reporting is relevant to the FCC's ability to carry out its oversight responsibilities. Furthermore, industry has failed to demonstrate why a "strong-collaborative government-industry relationship"²⁶ cannot co-exist with mandatory reporting requirements.

Finally, all key stakeholders, including not only the FCC and industry members, but also state regulators and consumer advocates should participate in public-private collaboration so that the perspective of the end user is represented adequately. This is discussed further in Section C, below.

B. President Obama's Executive Order on examining regulations does not preclude the FCC's adoption of outage reporting regulations.

Various industry commenters cite President Obama's July 2011 Executive Order regarding regulations as justification for their opposition to the proposed rules.²⁷ However, the Executive Order simply directs regulatory bodies to examine the costs and benefits of regulations, and does not bar the adoption of regulations. Consumer Advocates agree that it would make no sense to introduce costly or redundant regulations²⁸ that have no benefits, while working to reduce regulatory burdens, but respectfully disagrees that the proposed rules are redundant or that the costs of such rules outweigh the benefits. The burdens may fall on industry and the benefits may accrue to society as a whole, but these "public good" benefits are substantial and valuable, and certainly outweigh the minimal burdens on industry.

²⁶ / *Id.*, at 5.

²⁷ / *See, e.g.*, Comcast, at 6; T-Mobile, at 6; Verizon, at 9.

²⁸ / Comcast, at 6.

C. Public-private partnerships should complement but not substitute for government-mandated outage reporting.

Contrary to the views expressed in some initial comments,²⁹ the FCC should not rely on public-private partnerships as a substitute for outage reporting, nor, for the reasons discussed above, should the FCC rely on competitive pressures to yield reliable communications networks in the United States. In response to the *Notice*,³⁰ Consumer Advocates reiterate that participation in public-private partnerships that promote network reliability, while certainly a worthwhile pursuit, is insufficient in and of itself to address matters that implicate the public interest including ensuring national security.³¹ Public-private partnerships should supplement and inform but not substitute for mandatory, uniform outage reporting. As noted by the FCC, companies' incentives are to seek to optimize individual reliability, not systemic reliability, and, furthermore, companies are generally unwilling to share detailed information for competitive reasons.³²

Consumer Advocates acknowledge that industry seeks to provide a resilient, reliable broadband network, but national oversight of the condition of the network, and broadband

²⁹ / For example, CenturyLink points to the various federal committees and councils that address broadband infrastructure reliability and protection (including within the Executive Office of the President, the Department of Homeland Security, the Department of Defense, the Federal Bureau of Investigation, the State Department, the Department of Commerce, and the FCC, as well as industry organizations, such as the Alliance for Telecommunications Industry Solutions). CenturyLink, at 2. CenturyLink prefers to achieve the FCC's goals through existing groups and committees. *Id.*, at 20. XO refers to the FCC's coordination with the Communications Security, Reliability, and Interoperability Council ("CSRIC"), the work of the Alliance for Telecommunications Industry Solutions, and the National Security Telecommunications Advisory Committee as sufficient efforts for industry cooperation to minimize outages. XO, at 4-5. Verizon contends that information about availability and reliability is already available to the FCC through both private and government entities and that the collection of the proposed data would be redundant. Verizon, at 2. If indeed the data collection is redundant, then the additional burden to provide such information to the FCC should be minimal. *See also*, NCTA, at 12-18.

³⁰ / *Notice*, at paras. 57-57. See, also, *id.*, at paras. 20, 59.

³¹ / Consumer Advocates, at 10-11.

³² / *Notice*, at para. 20.

network outages is nonetheless integral to the ability of the federal government to provide for national security and safety adequately. Consumer Advocates are not persuaded that the FCC's proposed reporting is "a solution looking for a problem."³³ The FCC's adoption of a national uniform reporting system is reasonable and indeed, critically important, because it bears directly on matters of national security and on network reliability. As the nation makes a transition to a broadband network, it is important that this transition not diminish the FCC's ability to exercise informed oversight.

Rather than pursuing a voluntary reporting system, the FCC would fare better to solicit specific recommendations from industry (as it is now doing with the instant proceeding) as to the types of information that should be reported. AT&T considers the existing Part 4 rules to be "seriously flawed" yet offers few specific constructive suggestions as to how to improve them for the purposes of reporting outages for VoIP, broadband ISP access service, and backbone ISPs.³⁴

D. Industry has failed to demonstrate that the burdens associated with outage reporting outweigh the public benefits that result from outage reporting.

Industry comments assert that reporting would be burdensome.³⁵ Sprint, for example, contends that the burden of outage reporting outweighs the benefits³⁶ and raises the concern that an ISP's method for tracking network failures may not mesh with the data that the Commission seeks, thus creating a burden.³⁷ Comcast argues that the extension of reporting requirements to

³³ / AT&T, at 18.

³⁴ / *Id.*, at 19.

³⁵ / *See, e.g.*, Comcast, at 1; NCTA, at 3-11; Sprint, at 3-5; Verizon, at 10; XO, at 20.

³⁶ / Sprint, at 3-5.

³⁷ / *Id.*, at 4-5.

broadband Internet access service and backbone providers would be burdensome and costly,³⁸ but offers few specifics as to the burdens and costs. Consumer Advocates urge the FCC to dismiss such sweeping and unsupported statements with regard to burdens.

Furthermore, the FCC should view critically arguments that contradict its own analysis that operators of broadband Internet access service networks and backbone networks already collect much of the information that would be required for reporting. It is difficult to believe the industry storyline that competition provides ample incentive for network reliability (*i.e.*, to minimize outages) yet provides no incentive for providers to track detailed metrics about the reliability of networks.³⁹ If they do not track such information how do they know it is 99.9% reliable?. Likewise, Verizon's analysis is also internally inconsistent:

Complying with the proposed rules would impose significant costs on providers, and the threat of an enforcement action is ever-present in light of the Commission's recent consent decrees containing substantial voluntary contributions. Providers may share pertinent data more freely with a private party that would only report anonymized, aggregated data and with the Commission when there is not a risk of enforcement actions and forfeitures.⁴⁰

Verizon's comments tout the 99.99% reliability of its network. Its concern with enforcement actions appears to be contradictory. In essence, the industry is claiming that competition provides for reliable networks and makes outages rare. But they argue that to report on those rare outages would be burdensome and, despite facing competition and an incentive to provide reliable networks, the providers do not track basic information about the reliability of their networks. The FCC should not take these circular arguments seriously.

³⁸ / Comcast, at 5.

³⁹ / *See, e.g., id.*, at 6, stating that the proposed rules contemplate the collection of much more data than the companies collect. Comcast fails to provide any specific examples of the data it would be compelled to report yet it does not currently track.

⁴⁰ / Verizon, at 10

Verizon contends that information about availability and reliability is already available to the FCC through both private and government entities and that the collection of the proposed data would be redundant.⁴¹ If, however, industry is already making the data available, submitting similar data to the FCC should not be burdensome. Consumer Advocates welcome specific suggestions to ensure that the data that industry reports to the FCC is meaningful, useful, and meshes with industry practices.

As the Massachusetts DTC observes, however, burdens will be minimized because the FCC is proposing that the providers use the Network Outage Reporting System (“NORS”), an electronic reporting system that is already used for current outage reporting.⁴² Massachusetts DTC also commends the FCC for adopting a uniform system for outage reporting.⁴³ Furthermore, as stated above, if the networks are as reliable as the industry contends, then little reporting will be required.

E. Voluntary reporting and trials are inadequate alternatives to government-mandated outage reporting.

Various industry members oppose the imposition of a mandatory outage reporting system for VoIP providers and broadband ISPs, and recommend instead that the Commission establish a voluntary program⁴⁴ or a voluntary pilot program.⁴⁵ Verizon supports a voluntary program

⁴¹ / *Id.*, at 2.

⁴² / Massachusetts DTC, at 6.

⁴³ / *Id.*

⁴⁴ / Verizon argues that where the FCC does need more information, such reporting should be through a voluntary process. Verizon, at 2. *See also*, T-Mobile at 10.

⁴⁵ / Sprint, at 3, 11; AT&T, at 17. CenturyLink recommends that if the FCC decides to establish reporting for VoIP providers or broadband ISPs, it first work with service providers to design a voluntary trial reporting program

because of its purported “flexibility” to adapt to technological changes.⁴⁶ XO also opposes the proposed expansion of the Commission’s outage reporting requirements, asserting that they are unnecessary, burdensome and could “interfere with the evolution of the technologies used to provide the services.”⁴⁷ Consumer Advocates are confident that the FCC has the capacity to update these service quality rules as needed.⁴⁸ Furthermore, the failure to connect to emergency services is a pass/fail issue regardless of the underlying technology.

Consumer Advocates⁴⁹ and others oppose reliance on a voluntary process. Massachusetts DTC states that while providers have worked diligently to improve performance, there remains “a critical public safety need for outage data or reporting.”⁵⁰ Massachusetts DTC highlights the FCC’s own record indicating that voluntary reporting does not work.⁵¹ Consumer Advocates agree with New York PSC that a “mandatory outage reporting system would be more effective because it compels communications carriers to report outages in accordance with a uniform set of criteria, standardizes outage reporting requirements, and establishes the priority

for between 12 and 24 months, and, based on that trial, design a “minimally burdensome” and effective reporting system. CenturyLink, at 3. *See also, id.*, at 20-21.

⁴⁶ / Verizon, at 8.

⁴⁷ / XO, at 1-2.

⁴⁸ / In June 2010, the FCC began its Data Innovation Initiative wherein FCC Staff is reviewing regulations with the goal of eliminating unnecessary and outdated requirements while ensuring that the Commission has the data it needs to make informed policy decisions. See, e.g., http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db0629/DA-10-1189A1.pdf and FCC News Release, “FCC Advances Data Innovation Initiative: Proposals Would Streamline, Improve Collection and Use of Data,” February 8, 2011.

⁴⁹ / Consumer Advocates, at 10-11.

⁵⁰ / Massachusetts DTC, at 3.

⁵¹ / *Id.*, at 3-4.

and attention within company operations necessary for this critical function.”⁵² Matters of public safety should not be left to “voluntary” measures.⁵³

As the FCC discussed in its Notice, it has proposed mandatory reporting because of the critical role the network plays in all facets of consumers’ lives and the fact that such reporting “has met significant resistance in the past.”⁵⁴ As initial comments demonstrate, the reasons that the FCC adopted mandatory reporting for legacy voice network outages in 2004 also apply to the proposed extension of reporting requirements to additional services.

AT&T criticizes NASUCA’s August 16, 2010 reply comments upon which the Commission relied to determine that “economic justification to ensure such service [reliable service] appears to be limited, and does not consider network externalities.”⁵⁵ According to AT&T, there is no evidence that “the free market is failing to keep broadband networks efficient and reliable.”⁵⁶ AT&T also opposes network outage reporting for VoIP providers and for ISPs because, according to AT&T, the Commission exaggerates the benefits of the Part 4 rules.⁵⁷ If, as AT&T asserts, free markets are functioning sufficiently well so as to yield efficient and reliable broadband networks, then outage reporting should become moot. If there are no outages to report, the burden of so reporting should be negligible.

⁵² / New York PSC, at 6.

⁵³ / Consumer Advocates, at 10-11, citing *NPRM*, at para. 59. *See, also*, New York PSC, at 4.

⁵⁴ / *NPRM*, at para. 57; *see generally id.*, at paras. 56-57.

⁵⁵ / AT&T, at 11, quoting *Notice*, at para. 20. *See also*, AT&T, at 12-14.

⁵⁶ / *Id.*, at 12.

⁵⁷ / *Id.*, at 9.

F. Statutory Authority

Consumer Advocates support the FCC's conclusion that it has the requisite statutory authority to extend outage reporting requirements to interconnected VoIP providers and broadband ISPs.⁵⁸ As stated in initial comments, the FCC has been charged with enacting rules to ensure that VoIP service providers offer 9-1-1 service to consumers and has been assigned the task (through Presidential Directives and Executive Orders) of ensuring continuous network operation and the reconstitution of critical communications in times of emergency.⁵⁹ At least one industry commenter agrees: Comcast acknowledges that the FCC has express authority to mandate the provision of 911, which properly includes the extension of reporting requirements to interconnected VoIP providers.⁶⁰ Protecting citizens during disasters and ensuring that they have access to emergency services is a paramount and indisputable function of government, and, therefore, the FCC's statutory authority to extend Part 4 outage reporting requirements to VoIP and to broadband ISPs is unambiguous.

Consumer Advocates continue to believe that the FCC has unnecessarily created controversy and litigation with respect to this issue. The FCC should simply declare that VoIP is a telecommunications service, but *regardless* of when and whether the FCC makes such a determination, the FCC possesses the authority *now* to require VoIP providers to abide by the

⁵⁸ / See *Notice*, at paras. 67-72 and Consumer Advocates, at 9-10. See, also, Massachusetts DTC, at 7-8.

⁵⁹ / *Notice*, at para. 6.

⁶⁰ / Comcast, at 2. However, Consumer Advocates disagree with Comcast that this authority does not extend to broadband ISPs or backbone providers. *Id.*, at 7-8. XO does not consider additional reporting requirements to be necessary but concurs that the Commission possesses "sufficient ancillary jurisdiction to require providers of interconnected VoIP services to report outages of their mandatory 9-1-1 services." XO, at 9, citing *Notice*, at para. 68. However, XO contends that the reporting obligations should be triggered only for those failures that prevent end users from dialing 9-1-1. *Id.*, at 9-10.

same service outage reporting obligations that apply to other providers. The use of a particular technology, regardless of regulatory classification, should not give some carriers that use the public switched telephone network fewer obligations than others. The FCC should similarly reclassify broadband as a telecommunications service.

G. Confidentiality of Reporting

The current outage reporting data is considered confidential.⁶¹ In response to the FCC's request for comment,⁶² industry members seek confidential treatment for any additional outage reporting.⁶³ However, Consumer Advocates are not persuaded that there are compelling reasons to keep such data confidential.⁶⁴ In 2004, when it adopted the original outage reporting requirements, the FCC stated:

Given the competitive nature of many segments of the communications industry and the importance that outage information may have on the selection of a service provider or manufacturer, we conclude that there is a presumptive likelihood of substantial competitive harm from disclosure of information in outage reports.⁶⁵

As discussed above, the industry has repeatedly made claims that the purportedly competitive market provides an incentive for individual carriers to minimize outages. However, consumers cannot “vote with their feet” without complete information. Under the current reporting regimes,

⁶¹ / Notice, at para. 66, citing 47 C.F.R. §4.2. Consumer Advocates acknowledge that the FCC has previously determined that such information is confidential, but disagree with that determination because it unnecessarily interferes with the ability of consumers, state regulators, and consumer advocates to monitor the operations of those carriers that own and operate the public switched telephone network, and that, therefore, directly affect the public safety and welfare of consumers.

⁶² / *Id.*

⁶³ / See, e.g., T-Mobile, at 12; WISPA, at 7; CenturyLink, at 22.

⁶⁴ / This was not an uncontroversial matter when the FCC made this decision in 2004. See, e.g., Christopher Stern, “FCC Cuts Public Line to Phone Outage Data,” *The Washington Post*, August 28, 2004; http://redtape.msnbc.com/2006/12/why_cell_phone_.html.

⁶⁵ / In the Matter of New Part 4 of the Commission's Rules Concerning Disruptions to Communications, ET Docket No. 04-35, *Report and Order and Further Notice of Proposed Rulemaking*, rel. August 19, 2004 (“Part 4 Report and Order and FNPRM”), at para. 45 (cites omitted).

consumers are unable to use outage information to inform their choices *before* they lock themselves into a bundle or time commitment. As has been discussed many times, transaction costs can be high as consumers contemplate switching telecommunications carriers, particularly when consumers subscribe to bundles. Why would the FCC seek to shield individual providers from the consequences of a failure to provide quality service? Competitor use of outage reports to market services provides an incentive to provide more reliable service with fewer outages⁶⁶ and the expansion of reporting requirements to more entities levels the playing field with respect to this issue.⁶⁷

In opting for confidentiality, the FCC also relied upon the theory that terrorists may seek to harm communications networks and rely upon outage reports to do so:

The record in this proceeding, including the comments of the Department of Homeland Security, demonstrate that the national defense and public safety goals that we seek to achieve by requiring these outage reports would be seriously undermined if we were to permit these reports to fall into the hands of terrorists who seek to cripple the nation's communications infrastructure. In addition, release of this information could also make regulated entities less forthright in the information submitted to the Commission at a time when it is especially critical that we obtain full and accurate information in order to prevent harm to the communications infrastructure. Accordingly, the potential consumer benefits that we pointed to over a decade ago as a public interest factor weighing against routine treatment of outage reports as confidential information, are now substantially outweighed by the potential harm to the public and national defense that might result from disclosure. Accordingly, and although decisions with respect to specific records and the specific basis for withholding them must be

⁶⁶ / See, *id.*, at para. 44, stating: “[C]ommenters in this proceeding point specifically to the likelihood of substantial competitive harm from the disclosure of outage reports to competitors. Wireline carriers, for example, state that information contained in the outage reports that they have filed already has been used by competitors to wage marketing campaigns, and the likelihood of competitive harm is implicit in the comments of many others.” The application of reporting requirements to all providers of telecommunications services would “level the playing field” and ensure that all providers would be vulnerable to such disclosure. As a result, consumers would have information about all telecommunications services and therefore the market could work more efficiently.

⁶⁷ / See, for example, airline flight delay reporting, available at: http://www.bts.gov/programs/airline_information/.

made in the context of considering the facts underlying any individual Freedom of Information Act requests, including consideration of the specific types of competitive injury that submitters point to in those cases, we will amend our rules to provide that outage reports are presumptively protected from public disclosure under the FOIA.⁶⁸

Consumer Advocates respectfully disagree with this line of reasoning. The FCC should seek to minimize the amount of data that is deemed confidential and should analyze carefully the purported reasoning for affording confidential treatment to each sub-category of the reporting requirements. While national security should be protected, such a broad-brush approach should not be undertaken lightly. What specific information can be used, how, and to what end? That information, once shown to be harmful, could be redacted. It appears that the Department of Homeland Security (“DHS”) position may have changed. DHS publishes its own “Daily Open Source Infrastructure Report” on its website which is a “summary of open-source published information concerning significant critical infrastructure issues.”⁶⁹ For example, the September 27th report included the following items:

- “*September 26, ARLnow.com* – (Virginia) **Clarendon/Courthouse Verizon outage continues.** Hundreds of Verizon landline phone and DSL Internet customers in the Clarendon and Courthouse area of Arlington, Virginia were still without service September 26, a week after a contractor taking a soil sample struck several cables buried under Rocky Run Park. “Our restoral efforts continue,” a Verizon spokesman told ARLnow.com. “We’ve replaced and completed work on one of the damaged cables, and we’re at work on the second cable. We also found that a third cable was damaged, and we’ll be replacing a section of that one as well.” The cables contain thousands of individual copper lines, which carry phone conversations and Internet service to hundreds of Verizon customers in the area. Each copper line must be painstakingly spliced together to restore service. Source: <http://www.arlnow.com/2011/09/26/clarendoncourthouse-verizon-outage-continues/>”
- *September 26, TG Daily* – (California) **AT&T restores service after California outage.** AT&T customers in southern California experienced a service outage lasting from the

⁶⁸ / *Part 4 Report and Order and FNPRM*, at para. 45.

⁶⁹ / See http://www.dhs.gov/files/programs/editorial_0542.shtm (accessed September 27, 2011).

afternoon of September 24 through to September 25. The problem, which at its height affected about 1,000 cell towers, is said to have been caused by mechanical problems with the switching equipment that routes calls through the network. Most of the affected towers handled calls to and from Los Angeles County and Orange County. The problem started about 3 p.m. Six hours later, the company confirmed on Twitter: "Los Angeles area AT&T customers may have issues with wireless service. We are working now to resolve. We apologize for any inconvenience." It is not known how many users were affected. Data and text services continued to function normally. Service was restored for most customers by the morning of September 25. Source: <http://www.tgdaily.com/mobility-features/58680-att-restores-service-after-california-outage>.⁷⁰

Furthermore, electric utilities in California, for example, must reporting outage data to the PUC. This information is available to the public.⁷¹ There is a great public benefit to making the data publicly available. Neither consumers nor society should be left in the dark about instances that affect the reliability, resiliency, and security of the public switched telephone network.

Finally, the argument that companies will not be “forthright” in their reporting⁷² if the information is public is disturbing because, carried to its logical extreme, the argument leads to the unsettling implication that a requirement that information be publicly disclosed creates an irresistible incentive for carriers to provide untruthful information to the FCC.

The Massachusetts DTC, New York PSC, and Michigan PSC express concern about state entities’ access to critical public safety data. According to Massachusetts DTC, the FCC has granted DHS direct access to its outage database. In turn, DHS shares that information with state and local authorities. While Consumer Advocates respectfully disagree with Massachusetts DTC’s failure to object to the presumptive confidentiality position of the FCC, Consumer

⁷⁰ / See http://www.dhs.gov/xlibrary/assets/DHS_Daily_Report_2011-09-27.pdf (accessed September 27, 2011).

⁷¹ / See <http://www.cpuc.ca.gov/PUC/energy/ElectricSR/Reliability/annualreports/>.

⁷² / See, e.g., CenturyLink, at 22; *Part 4 Report and Order and FNPRM*, at para. 45 (cites omitted).

Advocates echo the DTC's concern that the FCC has not granted state and local authorities direct access, but instead continues to rely on DHS. Massachusetts DTC observes: "State and local entities often serve as the first line of defense for public safety and emergency situations, and delay in acquiring outage data can have serious consequences."⁷³ New York PSC and Michigan PSC express similar sentiments and are concerned that information sharing is critical to emergency responses at the state level and seek state password-protected access to NORS.⁷⁴ The California Public Utilities Commission ("California PUC") has a pending petition seeking direct access to the reporting database.⁷⁵ Certainly, Consumer Advocates concur with Massachusetts DTC that the FCC outage requirements should not preempt any existing or future outage reporting requirements promulgated by the states.⁷⁶ The importance to the nation of having readily available access to and use of service outage reporting far outweighs the purported burden to providers of submitting such information and doing so in a public manner.

H. Triggers for Outage Reports

a. Background

Initial comments address various aspects of the FCC's proposed outage reporting requirements (set forth in section 4.9 of the proposed rules) with the most discussion about: (1) the timing for notification to the FCC (the "Notification"); (2) the duration of an outage that

⁷³ / Massachusetts DTC, at 8-9. *See, also*, In the Matters of New Part 4 of the Commission's Rules Concerning Disruptions to Communications, ET Docket No. 04-35, Petition of California Public Utilities Commission and The People of the State of California for Rulemaking On States' Access to the Network Outage Reporting System ("NORS") and a Ruling Granting California Access to NORS, November 12, 2009, at 2.

⁷⁴ / New York PSC, at 8; Michigan PSC, at 4.

⁷⁵ / FCC Public Notice, "Public Safety And Homeland Security Bureau Seeks Comment On Petition For Rulemaking By The California Public Utilities Commission Requesting That State Public Utilities Commissions Be Granted Direct Access To The Commission's Network Outage Reporting System," rel. Feb. 2, 2010, ET Docket No. 04-35, RM-11588.

⁷⁶ / Massachusetts DTC, at 9.

“triggers” a report as well as other attributes of an outage that trigger reporting; (3) the timing for the submission of the “Initial Communications Outage Report”; and (4) the timing for the submission of the “Final Communications Outage Report.” Consumer Advocates do not oppose minor modifications to the proposed rules, but urge the Commission generally to adopt the rules as proposed. In light of the complexity of the issues encompassed, Consumer Advocates may supplement these comments further with an *ex parte* filing based on a review of reply comments.

b. Timing for Notification

The FCC’s proposed requirement for an initial notification of an outage comes under some criticism in initial comments. For example, NCTA considers the proposed requirement that VoIP providers submit a Notification to the FCC within 120 minutes of discovering an outage as unnecessary and recommends that instead of focusing on reporting outages to the FCC during this time, providers should be focused on fixing the problem.⁷⁷ Similarly, Verizon proposes that the FCC move from a three-report system to a two-report system (*i.e.*, eliminate the initial “notification” report).⁷⁸ By contrast, ATIS recommends that the FCC allow providers 240 minutes (rather than 120 minutes) from the discovery of an outage to the submission of a Notification,⁷⁹ and Comcast contends that the 120-minute notification threshold is too low because advanced networks have increased capacity and are complex making the determination of the “precise nature of the outage” difficult and more time consuming.⁸⁰

⁷⁷ / NCTA, at 8.

⁷⁸ / Verizon, at 16.

⁷⁹ / ATIS, at 13.

⁸⁰ / Comcast, at 2-3.

Consumer Advocates are not persuaded that providers' reporting of an outage cannot occur simultaneously with providers' efforts to remedy the outage. Presumably the effort of identifying an outage and taking steps to fix the outage must both occur and a simple electronic Notification to the FCC does not seem unduly burdensome. Consumer Advocates agree with New York PSC that "it is crucial that interconnected VoIP service providers and ISPs report network outage information on a real-time basis" mirroring the current wireline outage reporting timeframes.⁸¹ New York PSC properly recognizes that the objective of the proposed reporting is to ensure access to emergency services, so in addition to outages, asks the FCC to consider reporting requirements for instances in which a service problem affects access to 9-1-1, emergency services or utilities but may not trigger outage reporting under the contemplated rules.⁸² Absent additional support, the Comcast and ATIS request should not be adopted.

c. Minimum Duration of Reportable Outages and Trigger for Reporting Outages

VoIP Providers

CenturyLink proposes 900,000 user minutes as a threshold for triggering outage reporting by a VoIP provider (consistent with the FCC's proposed threshold), but also recommends that there should be at least 7,500 interconnected VoIP subscribers that have lost connectivity for at least 120 minutes (as opposed to the FCC-proposed 30-minute duration that does not consider the quantity of customers affected) before an event should be considered reportable.⁸³ Similarly, ATIS proposes that reports should be filed for outages that last at least 120 minutes (as opposed

⁸¹ / New York PSC, at 4-5.

⁸² / *Id.*, at 6.

⁸³ / CenturyLink, at 7.

to the 30-minute FCC-proposed threshold).⁸⁴ These proposals would water down the FCC standard, and would eliminate reporting of outages that impact significant numbers of customers for extended periods of time. The CenturyLink and ATIS proposals should be rejected.

As a separate matter, Consumer Advocates are concerned that the proposed 900,000-user-minute threshold for outage reporting would fail to address reliability issues in rural regions of the country that are served by small providers. In these instances (that is, for providers below a certain size), a different type of threshold may be appropriate that is based on the percentage of consumers affected. New York PSC supports the specific threshold criteria proposed by the FCC (with respect to 30 minute duration and the affected number of users) but also recommends the addition of criteria related to service problems that affect public access to 9-1-1; emergency services; utilities; and other service providers.⁸⁵ Consumer Advocates concur with the New York PSC's recommendation. Consumer Advocates also urge the FCC to require more geographically granular reporting of outages, which can be provided to state regulators and emergency officials.

Broadband access providers

Initial comments raise the concern that some service degradation or loss of connectivity that an end user experiences may be out of the control of broadband access providers (*e.g.*, issues relating to home networks, end users' modems, downloading of large movies, etc.).⁸⁶ Consumer Advocates welcome recommendations that would ensure that user-specific and application-specific issues do not trigger broadband access providers' outage reporting.

⁸⁴ / ATIS, at 12-13.

⁸⁵ / New York PSC, at 6, citing its own rules at 16 NYCRR §603.5.

⁸⁶ / CenturyLink, at 9-11.

CenturyLink recommends 900,000 user minutes as a threshold for broadband access providers to report outages that affects at least 7,500 end users for 120 minutes or more.⁸⁷ Its initial comments support a requirement that broadband Internet access service providers file outage reports for events that affect facilities such as major military installations, key government facilities, nuclear power plants, and PSAPs.⁸⁸

Comcast argues that broadband Internet access service providers and Internet backbone service providers cannot determine whether a consumer is using interconnected VoIP or making emergency calls at a given time on their network, and, therefore, the reporting requirements should not be extended to those entities.⁸⁹ Verizon contends that the FCC is contemplating rules for reporting “even when there is no end user impact.”⁹⁰ Consumer Advocates disagree with Verizon’s contention that: “[i]t follows that rules requiring *any* reporting by broadband backbone providers should not be adopted. The proposed rules for backbone providers contain no threshold for end user impact as the Commission recognizes that a backbone provider would have no ability to reasonably calculate that impact.”⁹¹ It is entirely appropriate, however, that the FCC be provided with information that enables it to monitor the overall resiliency of the broadband network. And the inability of backbone providers to calculate the end-user impact does not mean that there will be no end-user impact.

The reporting requirements for broadband Internet access service providers are triggered by the total volume of minutes (an outage affecting at least 900,000 user minutes): It would seem

⁸⁷ / *Id.*, at 13.

⁸⁸ / *Id.*, at 14 (citing *Notice*, at para. 43.)

⁸⁹ / Comcast, at 5.

⁹⁰ / Verizon, at 17.

⁹¹ / *Id.*, at 19 (emphasis in original)

that providers could estimate the potential impact based on average consumer use. The outage reporting requirement is still important to the FCC's goals. The FCC has been assigned the task (through Presidential Directives and Executive Orders) of ensuring continuous network operation and the reconstitution of critical communications in times of emergency.⁹² The FCC's reasoning is clear:

Interconnected VoIP services ride over broadband networks: If the underlying communications network fails, the VoIP service, including its Commission-mandated 9-1-1 capabilities, will fail as well. Accordingly, we propose to extend our outage reporting rules to include broadband ISPs, a term which, for the purposes of this discussion, includes broadband Internet access service providers and broadband backbone ISPs. While there is increasing evidence that major outage are occurring on these providers' facilities, and those outages may disable 9-1-1 and other service capabilities, currently there are no Commission requirements to report such outages.⁹³

Consumer Advocates reiterate their initial comments:

Broadband ISPs and VoIP providers are now "mainstream" companies serving large percentages of the nation's households. For example, Comcast is now the third largest provider of residential telephone service. Therefore, both in its role as a broadband ISP service, and in its role as a VoIP service provider, the reliability, resiliency, and security of Comcast's (and other providers') network has clearly developed into a matter of nationwide importance. Indeed, the importance of continuous broadband service cannot be overestimated.⁹⁴

Verizon also claims that broadband outages will "affect far fewer customers" than a voice network outage⁹⁵ and further argues that "the availability of the broadband service is but one of the many factors that impact a consumer's broadband experience . . ."⁹⁶ Yet

⁹² / *Notice*, at para. 6.

⁹³ / *Id.*, at para. 31.

⁹⁴ / Consumer Advocates, at 7 (cites omitted).

⁹⁵ / Verizon, at 11.

⁹⁶ / *Id.*, at 12.

Verizon fails to acknowledge that none of those other factors have any impact during a broadband outage. Verizon's discussion of all of the other factors which may impact a user's experience is not relevant to the proposed regulations⁹⁷ nor is its discussion of e-mail and website outages.⁹⁸

According to Verizon, 98% of reports from consumers that they cannot reach the Internet are not due to outages on networks.⁹⁹ However, contrary to Verizon's apparent line of reasoning, the goal of the proposed regulations is not to get a "view into the Internet user experience" but rather to ensure that consumers can reach emergency services.¹⁰⁰

Broadband backbone ISPs

Sprint recommends that outage reports be required by broadband backbone ISPs only if there is a complete loss of service, and when an outage lasts 60 minutes¹⁰¹ (as opposed to the FCC proposed requirement that ISPs take measurements "in each of at least 6 consecutive 5 minute intervals for any Point of Presence-to-Point of Presence (PoP-to-PoP) pair for which they lease, own or operate at least one of the PoPs."¹⁰² Consumer Advocates do not take a position on the merits of increasing the outage duration for broadband backbone ISPs at this time, but would

⁹⁷ / *Id.*

⁹⁸ / *Id.*, at 13.

⁹⁹ / *Id.*, at 13-14.

¹⁰⁰ / *Id.*, at 14. Verizon states: "But the Commission has no visibility into these communication-disrupting outages [referring to Gmail; Sony PlayStation; and Netflix video streaming outages] beyond the media reports or content provider announcements. It follows that requiring *only* providers of broadband networks to file outage reports – but receiving no such information from content and applications providers or hardware manufacturers – would give the Commission an incomplete and insufficient view into the Internet user experience." *Id.*

¹⁰¹ / Sprint, at 9.

¹⁰² / Notice, Section 4.9(i).

note that, as discussed above, Sprint’s proposal would cause significant outages not to be reported.

CenturyLink recommends that the FCC only require the reporting of events that entail the loss of connectivity and that the FCC not require the use of performance-based metrics for broadband backbone ISPs.¹⁰³ Because of the redundancies in broadband networks, CenturyLink opposes, for example, a requirement to report the loss of a single router, and instead recommends that if a PoP failure affected the connectivity of 7,500 end users for 120 minutes or more, that would qualify as an outage.¹⁰⁴

ATIS proposes the adoption of two separate reporting thresholds for broadband ISPs: (1) outages affecting an “access” region (*e.g.*, “edge devices” such as switches and routers), with a 120-minute outage threshold; and (2) outages affecting “metro” or “national” regions, with a 120-minute threshold combined with a threshold that the outage affects a minimum of 100,000 customers.¹⁰⁵ ATIS also proposes a two-report rather than a three-report system for broadband ISPs that would include an electronic Notification with 240 minutes of discovering an outage and a Final Communications Outage Report within 30 days of the submission of a Notification.¹⁰⁶ These recommendations seem reasonable and merit the FCC’s consideration.

WISPA requests that any new requirements “not unduly burden small service providers with overly costly rules that could make it difficult for them to continue operating and providing

¹⁰³ / CenturyLink, at 15, citing *Notice*, at para. 48.

¹⁰⁴ / *Id.*

¹⁰⁵ / ATIS, at 14-15.

¹⁰⁶ / *Id.*, at 15.

broadband service.”¹⁰⁷ WISPA raises concerns specifically about being required to monitor packet loss, latency, and jitter, and explains that small fixed broadband ISPs do not routinely monitor this information.¹⁰⁸ However, as the FCC reasons:

. . . the magnitude of the outages needed to trigger the proposed reporting requirements (e.g., outages of at least 30 minutes duration that potentially affect at least 900,000 user minutes) are sufficiently high as to make it unlikely that small businesses would be impacted significantly by the proposed rules. We also believe the choice of performance-based, as opposed to design-based, degradation characteristics (e.g., packet loss, roundtrip latency, and jitter) and the corresponding thresholds chosen to trigger the outage reporting will not unduly burden smaller entities. We have also carefully considered the notion of a waiver for small entities from coverage of the proposed rules, but declined to propose one, as a waiver of this type would unduly frustrate the purpose of the proposed requirements and run counter to the objectives of the NPRM. Further, we believe that the proposed requirement that outage reports be filed electronically would significantly reduce the burdens and costs currently associated with manual filing processes.¹⁰⁹

Consumer Advocates are concerned that all consumers (regardless of the size of the company providing the service) merit service of comparable quality and reliability.

d. Timing of Submission of Initial Communications Outage Report and Final Communications Outage Report

NCTA considers the separate proposed requirement that VoIP providers submit an Initial Communications Outage Report within 72 hours to suffice,¹¹⁰ while ATIS proposes a three-business-day period instead so that providers would not be required to file reports on weekends

¹⁰⁷ / WISPA, at 1-2.

¹⁰⁸ / *Id.*, at 3-4, citing *Notice*, at paras. 40-42.

¹⁰⁹ / *Notice*, Appendix B, at para. 45.

¹¹⁰ / NCTA, at 9.

or holidays.¹¹¹ ATIS’ recommendation seems reasonable. There appears to be general support for the proposed 30-day period for filing a Final Communications Outage Report.¹¹²

e. Packet loss, latency, and jitter

Many comments oppose the proposed reporting of packet loss, latency, and jitter (collectively, “performance metrics”). NCTA asserts that monitoring VoIP to enable the identification and reporting of those instances when packet loss, latency, and jitter exceed certain thresholds would create new and substantial costs for VoIP providers and their customers.¹¹³ CenturyLink opposes performance-based metrics to define or to trigger outages, and instead recommends that an outage definition “be limited to the complete loss of service or connectivity.”¹¹⁴ CenturyLink also opposes the use of performance-based metrics because, according to CenturyLink, there is not an economically feasible way to track and report such metrics, particularly because providers cannot control end users’ premises, equipment, and usage.¹¹⁵

ATIS contends that the collection of the performance data would not “necessarily provide a clear indication as to whether an even significantly degrades the ability of an end user to establish and maintain communications,”¹¹⁶ and also asserts that if the FCC were to adopt these

¹¹¹ / ATIS, at 13.

¹¹² / *See, e.g., id.*, at 14.

¹¹³ / *Id.*, at 7.

¹¹⁴ / CenturyLink, at 4.

¹¹⁵ / *Id.*, at 13-14.

¹¹⁶ / ATIS, at 11.

additional outage criteria, service providers would need to add additional equipment in their networks “at significant cost and effort.”¹¹⁷

Comcast opposes “technology-specific, quality-of-service metrics” (i.e. packet loss, latency, and jitter metrics).¹¹⁸ According to Comcast, each technology has strengths and weaknesses, and, Comcast questions the adoption of “fixed” quality of service metrics that will become outdated. However, Comcast does not have a good argument why as technology improves, a “floor” standard would be a detriment to progress. According to Comcast, these standards would inhibit the develop of new technologies because: “if the Commission determines that latency of 100 ms is the reporting threshold, developers would have little incentive to develop compression technologies that could tolerate latency of more than 100 ms.”¹¹⁹ This position flies in the face of claims that the market is competitive and that consumer pressure for enhanced service quality and the latest technology is sufficient incentive enough to discipline service providers. For example, Verizon states: “To survive in the highly competitive marketplace, Verizon and other communications providers must be able to offer services that are available when customer wish to access them – even during disasters, severe overloads, cyber attacks . . .”¹²⁰

Many industry commenters suggest that the jitter, latency and packet loss reporting requirements amount to quality of service requirements instead of outage reporting, and therefore

¹¹⁷ / *Id.*, at 12.

¹¹⁸ / Comcast, at 4.

¹¹⁹ / *Id.*

¹²⁰ / Verizon, at 1. *See*, also, *id.*, at 6, regarding competition in broadband market. *See*, also, Vonage, at 4, stating that companies “already face market-based incentives to provide reliable and quality service.”

oppose the mandatory reporting of these requirements.¹²¹ Consumer Advocates welcome service quality reporting on *all* voice service, whether offered over traditional legacy networks or IP-network. Verizon suggests that the tests would be need to be run throughout the network every five minutes and estimates more than \$100 million to install probes over two years.¹²² Vonage proposes that instead of the jitter, latency and packet loss standards that the FCC simply define an outage as “the loss of a user’s ability to make or receive a call” which would also “avoid the need to revise standards as providers continue to improve performance.”¹²³ But Vonage asserts that the proposed thresholds are actually “well within normal operating parameters for Vonage’s service” and that Vonage customers can make and receive calls under those conditions.¹²⁴

Consumer Advocates are not persuaded by industry that these metrics should not be reported, and instead finds it plausible that industry would be tracking these aspects of their operations in order to compete effectively in relevant markets.¹²⁵ Consumer Advocates disagree that the market is “highly competitive,”¹²⁶ but even if it were, Consumer Advocates disagree that the rules would “stifle such innovation by requiring all providers to undertake the same approach to track Commission-mandated service quality criteria.”¹²⁷

¹²¹/ Vonage, at 3, states: “the rules as currently proposed would require Vonage to report many conditions that cause no noticeable service degradation, much less a loss of communications capability.” *See also*, Verizon at 20.

¹²² / Verizon, at 21-22.

¹²³ / Vonage, at 4.

¹²⁴ / *Id.*, at 8. See also Declaration by Mike Mayernik on behalf of Vonage. Vonage proposes that these metrics could be used as a “safe harbor” (*i.e.*, if a provider’s consumers do not experience outages at those thresholds then they only would be required to report when true outages occur). *Id.*, at 11.

¹²⁵ / It would seem unlikely that Verizon, for example, in such a purportedly competitive market, would possess telemetry about its networks solely for the purpose of reporting to the Commission. Verizon, at 23.

¹²⁶ / *Id.*, at 22.

¹²⁷ / *Id.*

State role

States have separate and important emergency planning responsibilities. Any rules that the FCC adopts should not prevent states from establishing and implementing their own state-specific requirements for outage reporting.

III. CONCLUSION

Consumer Advocates support the FCC's imposition of mandatory outage reporting requirements for VoIP and broadband ISPs. Consumer Advocates urge the Commission to reject the industry's proposed reliance on voluntary reporting and on public-private partnerships as a substitute for mandatory outage reporting. Access to emergency services is an essential and vitally important national goal, and the FCC requires a standardized system for receiving outage reporting so that the FCC can fulfill its goals and responsibilities to protect citizens throughout the United States, regardless of the technology that they use to obtain access to the nation's communications infrastructure. Moreover, industry's logic implies that the burden of outage reporting should be far less than the substantial benefits of such reporting: industry's efforts to build a resilient network combined with the competition that industry contends creates incentives to minimize outages should result in the need for minimal outage reporting.

Respectfully submitted,

Charles Acquard, Executive Director
NASUCA

Charles Acquard
8380 Colesville Road, Suite 101
Silver Spring, MD 20910
Phone (301) 589-6313
Fax (301) 589-6380

Stefanie A. Brand
Director
Division of Rate Counsel
Christopher J. White
Deputy Public Advocate
P.O. Box 46005
Newark, NJ 07101
Phone (973) 648-2690
Fax (973) 624-1047
www.rpa.state.nj.us
njratepayer@rpa.state.nj.us

Economic Consultants:

Susan M. Baldwin
Sarah M. Bosley

October 7, 2011